

CLAIMS

I claim:

1. A frame for an exercise bicycle for supporting a flywheel, a seat assembly and a handlebar assembly, said frame comprising:

a monoframe having an upper front end, a lower front end, and a rear end;
a set of forks; and

5 wherein said upper front end is attached to said forks, and said lower front end is in a fixed position relative to said forks to make a rigid structure.

2. A frame as defined in claim 1, wherein:

said forks have a top end and a bottom end;
said upper front end is attached to said forks at or near said top end; and
said lower front end is attached to said forks at or near said bottom end.

3. A frame as defined in claim 1, wherein:

said upper front end is a continuation of said monoframe; and
said lower front end is a structural tube attached to said monoframe

4. A frame as defined in claim 1, wherein:

said monoframe is a hollow body defined by two panels rigidly attached together and defining a space therebetween.

5. A frame as defined in claim 4, wherein:

said panels are formed of stamped steel.

6. A frame as defined in claim 4, wherein:

said panels are seam-welded together.

7. A frame as defined in claim 4, wherein said panels form a structural support portion of the frame.

8. A frame as defined in claim 2, wherein:

said lower front end is attached to a first plate;
said bottom end of said forks is attached to said first plate;

- 5 said first plate is supported on a front base;
- 5 said rear portion of said monoframe is attached to a second plate; and
- 5 said second plate is supported on a rear base.
9. A frame as defined in claim 2, wherein:
- 5 said monoframe has a shape defined by a central body and a first extension therefrom defined by said monoframe and forming a top tube.
10. An exercise bicycle frame comprising:
- 5 a monocoque frame member defining:
- 5 a rear support;
- 5 a top support extending generally forwardly and upwardly from the rear support; and
- 5 a seat support extending generally upwardly from the rear support, the seat support between the rear support and the top support.
11. The exercise bicycle of claim 10 wherein the monocoque frame member includes a first side panel and a second side panel welded together and defining a partially hollow space therebetween.
12. The exercise bicycle of claim 10 wherein the rear support defines an upper convex wall.
13. The exercise bicycle of claim 12 wherein the rear support defines a lower concave wall.
14. The exercise bicycle of claim 13 further comprising a rear plate extending transversely from the rear support, the rear plate configured to laterally support the exercise bicycle frame.
15. The exercise bicycle of claim 14 wherein the upper convex wall is connected with the rear plate and the lower concave wall is connected with the rear plate.
16. The exercise bicycle of claim 11 wherein the bottom support extends generally forwardly from the rear support.
17. The exercise bicycle of claim 16 further comprising a front fork assembly connected with the bottom support and with the top support.
18. The exercise bicycle of claim 16 wherein the bottom support defines a concave bottom wall intersecting the lower concave wall of the rear support.

19. The exercise bicycle of claim 16 wherein the bottom support defines a top concave wall.

20. The exercise bicycle of claim 18 wherein the bottom concave wall intersects the top concave wall and defines a bottom tube aperture adjacent the intersection of the bottom concave wall and the top concave wall.

21. The exercise bicycle of claim 20 wherein the bottom support further comprises a bottom tube.

22. The exercise bicycle of claim 21 wherein the bottom tube is connected with the front fork assembly.

23. The exercise bicycle of claim 21 wherein the bottom tube is partially contained within the partially hollow space between the first side panel and the second side panel, and wherein the bottom tube extends generally forwardly and outwardly from the bottom tube aperture.

24. The exercise bicycle of claim 11 wherein the seat support defines a rear concave wall and a front concave wall.

25. The exercise bicycle of claim 24 wherein the rear concave wall intersects the front concave wall and defines a seat tube aperture adjacent the intersection of the rear concave wall and the front concave wall.

26. The exercise bicycle of claim 25 wherein the seat support further comprises a seat tube.

27. The exercise bicycle of claim 26 wherein the seat tube is partially contained within the partially hollow space between the first side panel and the second side panel, and wherein the seat tube extends generally upwardly and outwardly from the seat support aperture.

28. The exercise bicycle of claim 24 wherein the rear concave wall of the seat support intersects the upper convex wall of the rear support.

29. The exercise bicycle of claim 28 further comprising a bottom bracket connected with the seat tube, the bottom bracket configured to operably support a drive train.

30. The exercise bicycle of claim 29 wherein the first side panel defines a first bottom bracket aperture and the second side panel defines a second bottom bracket aperture, and wherein a portion of the bottom bracket is connected with at least one of the first and second bottom bracket apertures.

31. The exercise bicycle of claim 10 wherein the top support defines an upper convex surface.

32. The exercise bicycle of claim 31 wherein the top support defines a lower concave surface.

33. The exercise bicycle of claim 32 wherein the lower concave surface of the top support intersects the top concave surface of the bottom support.

34. An exercise bicycle frame comprising:
a tube including:

a first wall having a first edge and a second edge;

a second wall having a third edge and a fourth edge;

a third wall connected between the first edge and the third edge;

a fourth wall connected between the second edge and the fourth edge;

and

wherein a first distance between the first edge and the second edge is greater than a second distance between the third edge and the fourth edge.

35. The exercise bicycle of claim 34 further comprising:
a post including:

a first post wall having a first post edge and a second post edge;

a second post wall having a third post edge and a fourth post edge;

a third post wall connected between the first post edge and the third post edge;

a fourth post wall connected between the second post edge and the fourth post edge; and

wherein a third distance between the first post edge and the second post edge is greater than a fourth distance between the third post edge and the fourth post edge.

36. The exercise bicycle of claim 35 wherein the first distance is greater than the third distance and wherein the second distance is greater than the third distance.

37. The exercise bicycle of claim 36 wherein the first wall is parallel with the second wall.

38. The exercise bicycle of claim 37 wherein the first post wall is parallel with the second post wall.

39. The exercise bicycle of claim 38 wherein an angle between the first wall and the third wall adjacent the first edge is substantially the same as an angle between the first wall and the fourth wall adjacent the second edge.

40. The exercise bicycle of claim 36 wherein the post fits within the first wall, the second wall, the third wall and the fourth wall of the tube.

41. The exercise bicycle of claim 40 wherein the tube includes a pop pin.

42. The exercise bicycle of claim 41 wherein the post defines a plurality of apertures.

43. The exercise bicycle of claim 42 wherein the pop pin is adapted to engage one of the plurality of apertures in the post.

44. The exercise bicycle of claim 43 wherein the pop pin is adapted to positively engage at least two of the post walls with at least two of the tube walls.

45. An exercise bicycle comprising:

a tube;

a post defining at least one aperture having a first opening size;

5 a pin having a collar, the pin having a size less than the first opening size and the collar having a size greater than the first opening size;

wherein the post is arranged within the tube so that the adjustment device is aligned with one of the at least one apertures to adjust the post with reference to the tube.

46. The exercise device of claim 45 wherein the tube defines a first threaded bore and the adjustment device further comprises a sleeve defining an outer threaded portion in engagement with the first threaded bore.

47. The exercise device of claim 46 wherein the adjustment device further comprises a spring connected between the pin and the sleeve.

48. The exercise device of claim 47 wherein the spring is biased to force the pin into one of the at least one apertures in the post.

49. The exercise device of claim 46 wherein the sleeve further comprises an inner threaded bore.

50. The exercise device of claim 49 wherein the adjustment device further comprises a rod extending from the pin, the rod defining a threaded portion distal the pin.

51. The exercise device of claim 50 wherein the threaded portion of the rod abuts the inner threaded bore of the sleeve.

52. The exercise device of claim 51 wherein the threaded portion of the rod is adapted to engage the inner threaded portion of the bore to force the collar against the post adjacent one of the at least one apertures.

53. The exercise device of claim 52 wherein the tube defines a first wedge configuration and the post defines a second wedge configuration adapted to cooperate with the first wedge configuration.

54. The exercise device of claim 53 wherein the post is wedged within the tube by operation of the adjustment device.

55. An exercise bicycle comprising:

a tube having at least three walls defining a post receiving channel;

a post having at least three walls configured to fit within the post receiving channel; and

5 means for wedging the post within the post receiving channel so that at least two of the walls of the at least three walls of the post engage at least two the walls of the at least three walls of the tube.